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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/940,095	08/27/2001	Alonzo J. Kelly	99240	4272
26285	7590	09/17/2004	EXAMINER	
KIRKPATRICK & LOCKHART LLP 535 SMITHFIELD STREET PITTSBURGH, PA 15222			CHOOBIN, BARRY	
			ART UNIT	PAPER NUMBER
			2625	

DATE MAILED: 09/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/940,095	<b>Applicant(s)</b> KELLY ET AL.	
	<b>Examiner</b> Barry Choobin	<b>Art Unit</b> 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-41 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 22-41 is/are allowed.
- 6) ☒ Claim(s) 1,5,10,11,13-15,17 and 18 is/are rejected.
- 7) ☒ Claim(s) 2-4,6-9,12,16,17 and 19-21 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>August 27, 2001</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement (IDS) submitted on August 27, 2001 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 5, 10, 11, 13-14, 15, 17 and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Rowe et al "MAP CONSTRUCTION FOR MOSAIC BASED VEHICLE POSITION ESTIMATION" (applicant's admitted prior art).

As to claims 1, 5, 11, 15, 18, Rowe et al disclose a computer-assisted method for localizing a rack, comprising: sensing an image of the rack (fig.1); detecting line segments in the sensed image (Rowe et al disclose a map construction comprising

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segmenting an image within a global frame at paragraph 4, corresponding to detecting line segments in this portion of the claim); recognizing a candidate arrangement of line segments in the sensed image indicative of a predetermined feature of the rack (paragraph 4.1); generating a matrix of correspondence between the candidate arrangement of line segments and an expected position and orientation of the predetermined feature of the rack (paragraph 4.1.1); and estimating a position and orientation of the rack based on the matrix of correspondence (paragraph 4.1.1).

As to claim 10, Rowe et al disclose that the sensor is a camera (fig.1).

As to claim 13, Rowe et al disclose that the sensor is connected to a vehicle (fig.1, downward looking camera).

As to claims 14, 17, Rowe et al disclose an automated guided vehicle in different application such as factory and warehouse (page 1, paragraph 1).

***Allowable Subject Matter***

4. Claims 2-4, 6-9, 12, 16, 19-21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 22-41 are allowed.

Prior art fails to teach or fairly suggest a method for stacking an upper rack and a lower rack, comprising; determining a relative distance between the first leg and the second receptacle based on the first matrix of correspondence and determining a relative distance between the second leg and the second receptacle based on the second matrix of correspondence.

Although as indicated above in section 3, of the Office Action, Rowe et al disclose a method for mosaic based vehicle position estimation. But Rowe et al fail to disclose or fairly suggest the invention as specified in independent claims 22, 29, 34, 38 and 40.

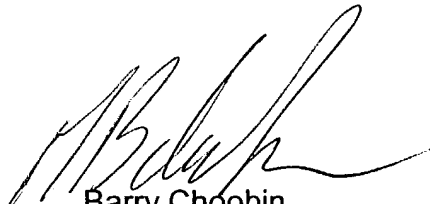
#### ***CONTACT INFORMATION***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barry Choobin whose telephone number is 703-306-5787. The examiner can normally be reached on M-F 7:30 AM to 18:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on 703-308-5246. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Barry Choobin

August 27, 2004